PHIN Conference 2005
CDC Update on NBS and PDP

May 10, 2005

phin

PUBLIC HEALTH INFORMATION NETWORK

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Agenda

- Status of the surveillance systems environment

- Supporting multiple systems and an integrated network under PHIN

- Pay-off for all stakeholders (standards & specifications for integrating, messaging, etc.)

- CDC-developed NEDSS applications: goals, financial support, deliverables

Surveillance Systems Environment

- Post - 9/11 surveillance expectations
  - Need an integrated system
  - Near real time suspect case accumulation and management
  - Rapid data accumulation for emerging health events
  - Electronic exchange of data between organizations and functions

- More surveillance systems participants
  - Maturing commercial product offerings
  - More state and locally developed systems
  - Burgeoning Electronic Health Records Activities – especially RHIO's

- New National Center for Public Health Informatics
  - Active partner support vs. helpdesk
  - Progress on process and tools for integrated systems
  - Next steps for PHIN Architecture

PHIN Architecture – Integration Points for Surveillance Systems

- Developer's workshop specifications and training – summer 2005
  - Developing HL7 version 3 notifiable condition messages
  - Creating HL7 version 2.5 lab result messages
  - Integratable patient registries
  - Message receipt, viewing and management
    - lab results, case, alert messages
  - Interfacing detection algorithms and AVR
  - Rapid and exchangeable form development
  - Others?

Moving Forward with PHIN Surveillance

- Detail and document integration points to facilitate multiple software providers

- Program area modules to be delivered to work in this environment
  - Stand alone or integrate with each other, NBS, state and local systems
  - Requirements and message specifications will be products unto themselves to serve all systems developers (blueprints for systems developers)

- Collaborative documentation process for requirements
  - Partner involvement in functional requirements in disease areas
  - Partner involvement in technical specifications

- Increased deployment and support personnel – supporting CDC systems and PHIN integration of other systems

PHIN Preparedness - Process

1. Document functional requirements for systems to support public health preparedness
   - 5 Functional requirements documents at www.cdc.gov/phin
   - 6 regional conferences with ASTHO, NACCHO, state and local health departments
   - Required in next BT cooperative agreement

2. Document industry standard-based specifications
   - 42 PHIN message implementation guides
   - 12 Key performance measures at www.cdc.gov/phin in March
   - Guides and technical specifications at www.cdc.gov/phin in March

3. Make software available that can support these functions and specifications for those who need it
   - CDC developed systems and services

4. Implement certification of CDC and partners for the functional requirements and key performance measures

Functional Requirements, Standards, Specifications and Key Performance Measures

- **Functional Requirement** – An expression of something a system must be able to do. Some are mandatory and others describe enhanced functionality

- **Industry Standard** – A data element or technical detail agreed to and supported by a standard development organization

- **Specification** – A detailing of an industry standard to the point necessary for its use by operational system or systems

- **Key Performance Measure** – A discrete testable technical or operational capability

TABLE OF CONTENTS

OUTBREAK MANAGEMENT

Functional Requirements
Contact Exposure Tracing

2.3.3 **Contact Exposure Tracing**

2.3.3.1 Each investigation subject may be associated with exposure contacts, including unambiguous links to contacts in other jurisdictions.

2.3.3.2 Contacts of exposed entities (e.g., people, animals, places) may be traced, investigated, and monitored.

2.3.3.3 Systems supporting OM should be able to create new contacts from existing case records, and should also identify the contact type.

2.3.3.4 Systems supporting OM must support contact exposure tracing by allowing one contact to be linked to multiple cases, and allowing multiple contacts to be linked to a single case.

2.3.3.5 Systems supporting OM should be able to produce contact work lists for each investigator to use, and should allow sorting by priority or geography.
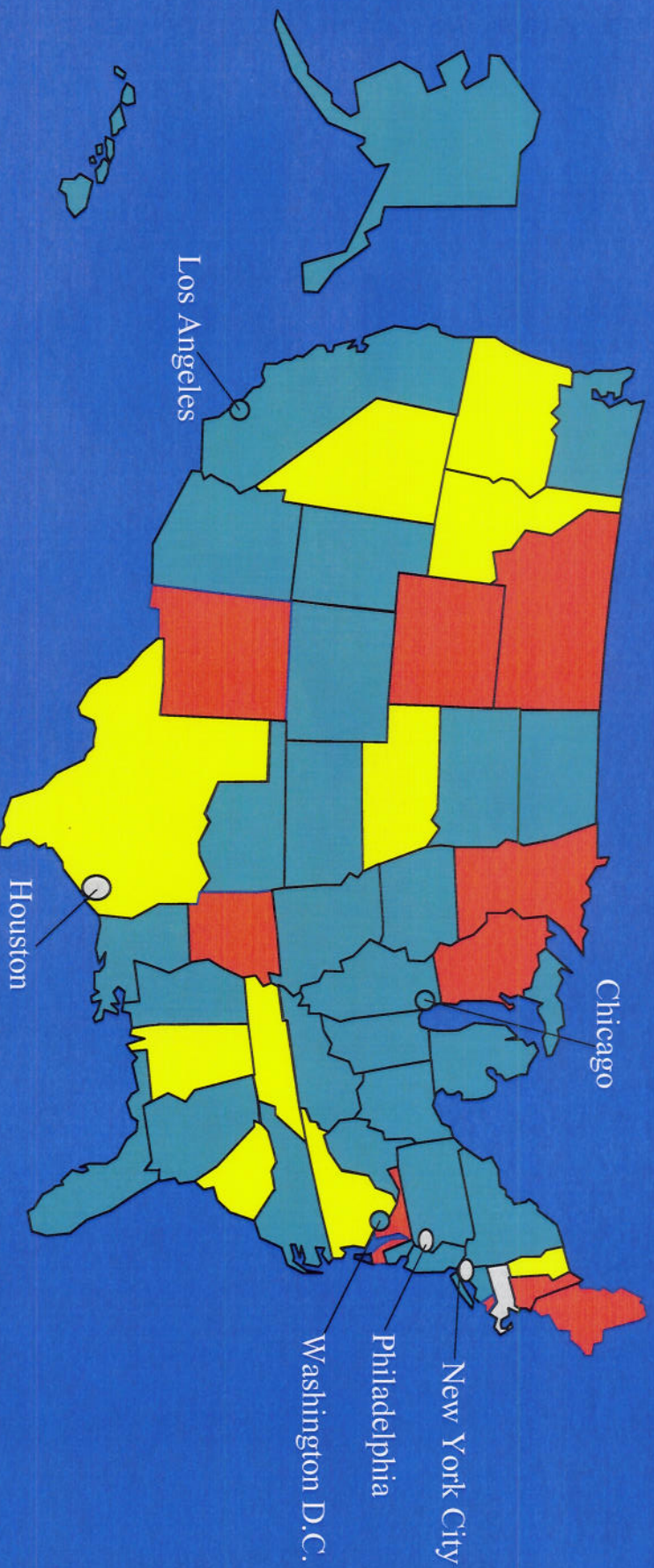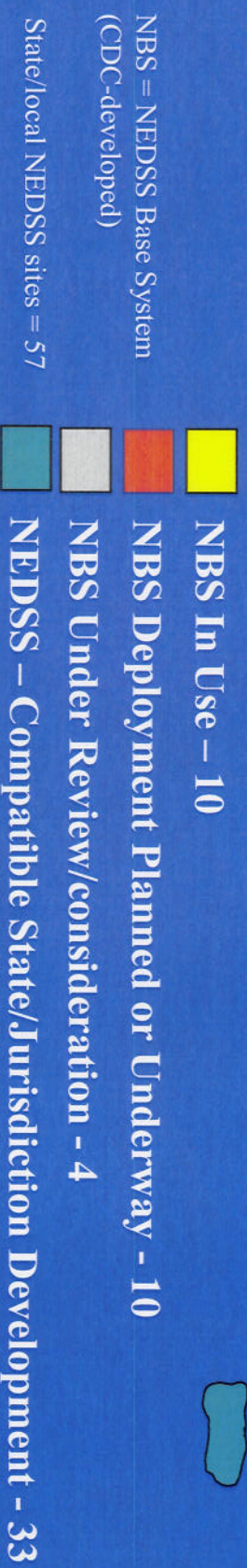
NEDSS Site Status - 05/10/2005

Los Angeles

Houston

Chicago

Washington D.C.

Philadelphia

New York City

NBS = NEDSS Base System
(CDC-developed)

State/local NEDSS sites = 57

- NBS In Use – 10
- NBS Deployment Planned or Underway – 10
- NBS Under Review/consideration – 4
- NEDSS – Compatible State/Jurisdiction Development – 33

DEPARTMENT OF HEALTH & HUMAN SERVICES USA

CDC

NBS Functions
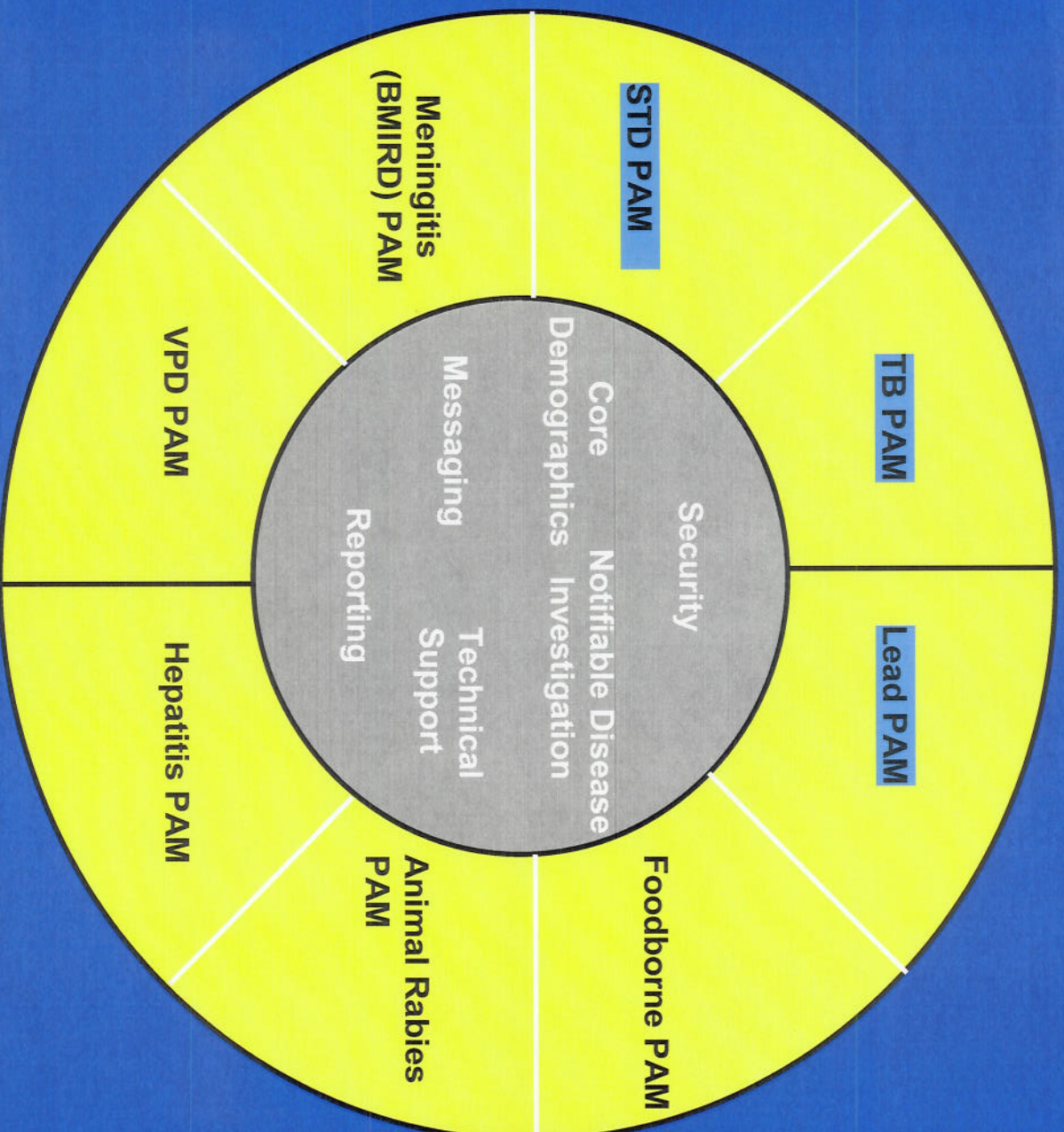
Challenges for ongoing NBS development and support

- Rapid new PAM development
- MPI integration enabled
- Common (shareable) services
- Common (shareable) analysis data
- Greater customization support
- Improved ability to enhance PAMs
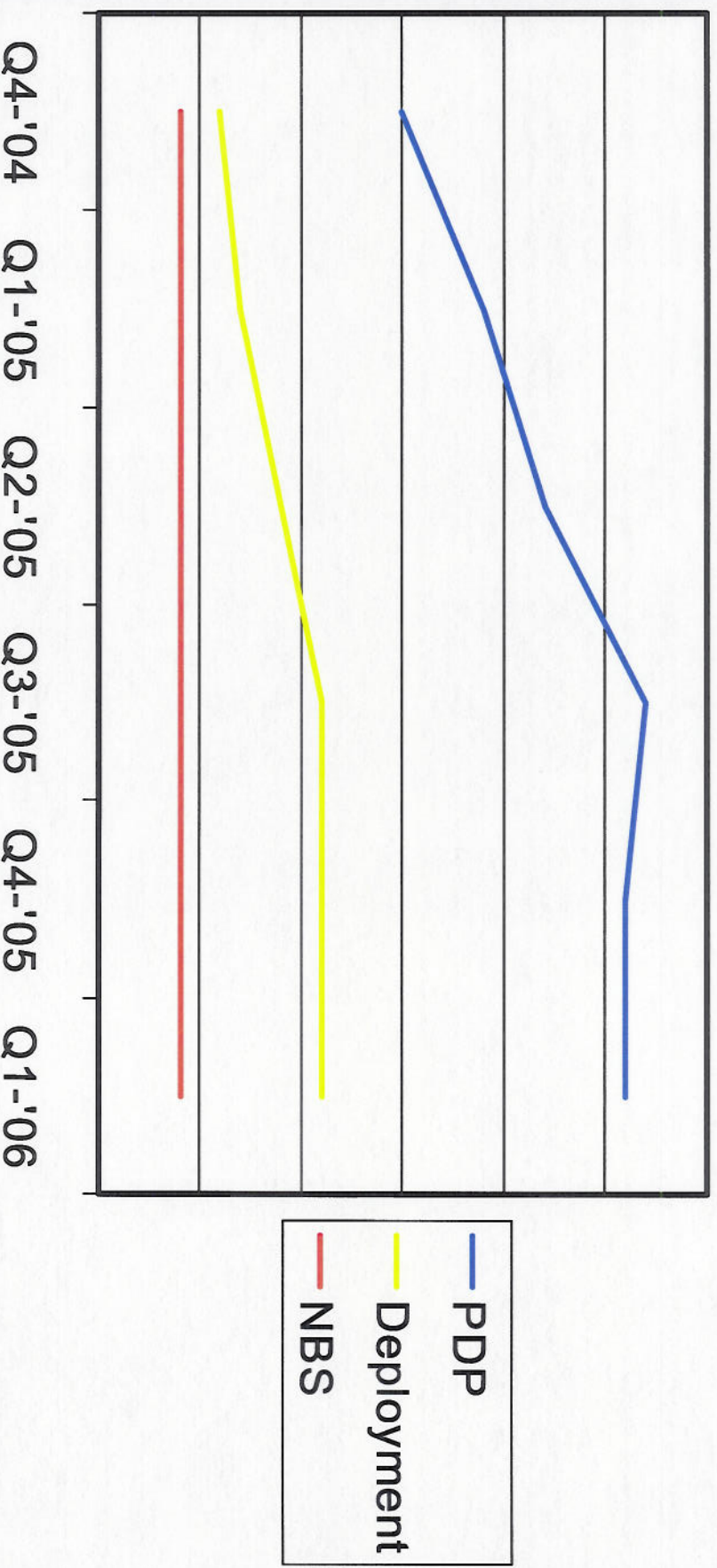- PHIN service support
- Developer agnostic

Project Staffing Profile

PDP Initial Scope, R 1.0

- Lead PAM – to replace STELLAR & ABELS
- TB Surveillance PAM – to replace TIMS

PAM Platform Status Report

Govt. Monitor:	Scott Danos
Tech. Lead:	
Project Lead:	Eric Norman
# Resources:	32 FTEs
# Res. Needed:	
Resource Request.	
Approved. (Y/N):	

NCPHI Status Report – 4/4/2005

Program Area Modules

NEDSS

Report Prepared By: Eric Norman

EXECUTIVE MILESTONE OVERVIEW:

ID	Executive Milestones (minimum three)	Status	Baseline Completion Date	Expected Completion Date	Degree (%) of Confidence	Change? (Yes, No, New)
E1	Release 0.1 (UI: 25%, Messaging: 25%, Vocab: 25%)	Complete	03/31/2005	03/31/2005	100%	No
E3	Release 0.2 (UI: 50%, Messaging: 60%, Vocab: 50%)	Planned	05/27/2005	05/27/2005	90%	Yes
E4	Release 0.3 (UI: 75%, Messaging: 75%, Vocab: 100%)	Planned	07/12/2005	07/12/2005	75%	New
E5	Release 0.4 (Data Migration Software 100%)	Planned	08/11/2005	08/11/2005	75%	New
E6	Release 0.5 (UI: 100%, Messaging: 100%)	Planned	10/13/2005	10/13/2005	60%	New
E7	Release 1.0 (TB and LEAD PAM Beta Version)	Planned	11/09/2005	11/09/2005	50%	New

PROJECT OVERVIEW:

Narrative Summary and Status	**Schedule:**	**Budget:**	**Issues:**
	GREEN	GREEN	Yellow

The PAMs work continues to be focused on refinement of an integrate-able architecture to support the construction of standalone PAMs. Decision to move forward to develop an integrate-able Lead PAM prototype utilizing the latest development components has been reached:

- UI is 25% Complete
- BOM is 65% complete
- Data Migration code is 25% complete
- Data Synchronization has been redesigned to accommodate Provider
- Release 0.1 Completed on 3/31, team preparing to move to Release 0.2

PDP Scope, Additional PAMs

- Varicella PAM – to support a new data collection form. (est. 07/05 to 11/05)
- STD PAM – to replace STD*MIS (est. 09/05 to 04/06)
- Listeria PAM – (est. TBD)
- Paul Coverdell (Stroke) PAM – (est. TBD)
- NVDRS PAM – (est. TBD)
- HIV PAM – to replace HARS (est. TBD)

Lead PAM Requirements

- Blood Lead Surveillance
- Individual Case Management
- Environmental Case Management
- Support AVR, both pre-defined and ad hoc
- Configurable Business Functions

TB PAM Requirements

- Capture surveillance data for a patient

- Import state RVCT data from non-NBS generated sources

- Support tracking, validation, and approval of surveillance data

- Generate reports for analysis of surveillance data

- Message surveillance data using HL7 messaging standards

UI Design Objectives

- Flexible
- Reusable/Extendable
  - Allows user interfaces to be composed from existing components
  - Controlled vocabulary modifiable per deployment
- Application-Based Look and Feel
  - Thick client look-and-feel using Web-based technology